

CLAIMS

1. A measuring transformer for comparing a current flowing through a conductor to a reference current comprising:
 - a magnetic circuit formed by a toroidal core;
 - 5 a conductor through which the current flows and which is enclosed by the toroidal core;
 - a secondary winding arranged on the toroidal core;
 - a magnetic flux measuring element which is arranged in a gap of the toroidal core and which is sensitive to the magnetic field in the gap;
 - 10 a reference setting unit for acting on the secondary winding with a predefined reference current which sets the current which is to flow in the conductor through which current flows, and wherein the magnetic flux measuring element is adapted to deliver a difference signal representative of the difference between the reference current and the current flowing through the conductor.
- 15 2. A measuring transformer according to claim 1 characterized in that the magnetic flux measuring element is a Hall element.
3. A measuring transformer according to claim 1 characterized in that connected downstream of the output of the magnetic flux measuring element is an amplifier for amplifying the electrical output signal of the magnetic flux measuring
20 element.
4. A measuring transformer according to claim 1 characterized in that there is provided a control unit for controlling the current flowing through the conductor, in such a way that the current flowing through the conductor approximates to the reference current.

5. A measuring transformer according to claim 1 characterized in that to form the absolute value in respect of the current to be measured means are connected downstream of the magnetic flux measuring element for superimposition of the reference current with the output signal of the magnetic flux measuring element.
- 5 6. A control unit for controlling or regulating a current flowing through a conductor with a measuring transformer according to one of the preceding claims for measuring the current flowing through the conductor.
7. An inverter, in particular for a wind power installation, having a control unit according to claim 6 for controlling the output current of the inverter.
- 10 8. An inverter according to claim 7 characterized in that the reference setting unit is a component part of the inverter.
9. A wind power installation having an inverter according to claim 7.